The American Telemedicine Association

Testimony before the House Committee on Veterans Affairs, Health Subcommittee

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May 18, 2005

Mr. Chairman, members of the Committee, my name is Jonathan D. Linkous. I am the executive director of the American Telemedicine Association. I want to thank you for providing ATA the opportunity to submit testimony regarding the development and use of telemedicine technologies in the Department of Veterans Affairs health care system.

The American Telemedicine Association is the leading resource and advocate for telemedicine. ATA is a non-profit association established in 1993 and headquartered in Washington, DC. The Association works closely with medical societies, technology groups, industry leaders, elected officials and others to resolve barriers to the advancement of telemedicine through the professional, ethical and equitable improvement in health care delivery.

ATA is governed by an elected Board of Directors and guided through the active involvement of health professionals, medical institutions and corporate members. Our members include health professionals, institutions and vendors involved in the use of home telehealth. The Association holds scientific and training meetings and expositions focusing exclusively on telemedicine and sponsors a scientific journal. Several years ago the Department of Defense decided to eliminate their own separate meeting and combine their meeting with ATA's in order to increase efficiency as well as take advantage of the opportunity to learn and share with others active in telemedicine outside the military. Today, our annual meeting is held jointly with the U.S. military and serves as a gathering place for many in the field.

In this testimony, I would like explain our definition of telemedicine and telehealth as well as in-home services and provide you with our comments on the VA's approach.

<u>Background on Telemedicine</u>

Telemedicine uses telecommunications technology to transfer medical information for use in diagnosis, treatment and education. The interaction may involve two-way live audio and video visits between patients and medical professionals, sending patient monitoring data from the home to a clinic or transmitting patient images and medical

files from a primary care provider to a specialist. Telemedicine is already widely used in radiology, cardiac monitoring and other forms of remote patient monitoring and in targeted population groups such as correctional institution populations, the military and veterans' health care.

Once confined to expensive demonstrations extending medical care to patients in remote areas, telemedicine is quickly becoming an integral component in the delivery of modern health care regardless of geographic or socioeconomic status. Changes in Medicare, Medicaid and private insurance reimbursement policies are allowing telemedicine to become an integral part of the practice of medicine throughout the U.S. and can lead to expansion of services and reduction in costs.

In the U.S. and many other nations, most of the government-funded demonstration programs have supported the creation of hub and spoke telemedicine systems linking an academic medical center at the hub with primary care clinics at the spokes. These demonstration programs, paralleling the evolution of U.S. health care systems, have been beneficial in proving the efficacy and effectiveness of telemedicine.

Although still new, telemedicine is rapidly changing. Taking advantage of new developments in telecommunications, lowered technology costs and the establishment of the Internet, the growth of telemedicine over the next five to ten years may have a profound and revolutionary effect on the delivery of medical care throughout the world.

New applications are making it practical for direct communications between patient and provider and physician and specialist. In this way, telemedicine can bring medical services directly to the point of need. It can empower consumers to become a primary overseer of their own health and wellness by bringing healthcare to the patient rather than the patient to the provider. By providing direct links between the general practitioner and major medical centers it can also be used for ongoing education of the physician.

Telemedicine in the Home

With the aging of the population in most developing nations, home telehealth has probably one of the greatest potentials for rapid growth worldwide. Today, it is estimated that over 15,000 providers deliver care to over 7 million individuals requiring in-home services because of acute illness and long-term health conditions.

Throughout the past two decades, the home monitoring industry has been developing electronic and telecommunication equipment which enable vital sign and related information to be collected and medical care provided using telemedicine techniques rather than relying on in-person care to patients in their homes.

Increasingly, hospital disease management programs are using telehealth to monitor patients in the home. After decades of research, it is now well documented that home telehealth creates advantages in terms of both cost savings and improved care.

The growth and future demands for home telehealth also presents challenges for providers, device manufacturers, users and patients.

- With more technologies moving into home-care and more and sicker patients being treated outside the hospital, home telehealth applications must rapidly change to take advantage of new technologies and evolving patterns of chronic care and disease management.
- They also must be able to meet the diverse demands of home care agencies, hospitals, government programs and the growing number of independent remote monitoring and disease management organizations including the integration of data coming from home telehealth into the existing patient record.
- In addition, emerging growth in demand for home telehealth exists outside of the United States. Aging patterns across Europe closely resemble the U.S. trend and in Asia, the rapidly changing demographic characteristics and the tradition for caring for elders at home creates both a challenge and a unique opportunity for the implementation of telehomecare.

An array of devices is available for home telehealth. The specific device or application can be used to match the needs of the individual patient. Some of the available applications include:

- Trans-telephonic patient single-purpose monitors have been used to replace holter-monitoring systems used within hospitals. Such applications allow the patient to remain at home and deliver the monitoring data to the health professional through the telephone. The largest use of home monitors is in cardiac monitoring including remote monitoring of implantable pacemakers as well as event monitors and ECG recorders. Increasingly, cardiologists and other physicians have entered into relationships with remote cardiac monitoring services and have started offering such services to their patients. Often, such services are covered under insurance plans. Remote fetal and pulmonary monitoring also starting to be widely deployed.
- Health status monitors are used to collect data about the patient and send it to a monitoring center such as a visiting home care agency or a hospital. Some of these units simply collect patient-entered information about their health status.
- Multi-purpose home telehealth equipment can be used to collect and send vital signs using peripheral devices related to a specific disease such as diabetes, congestive heart failure or chronic obstructive pulmonary disease. Others can collect a variety of information about a patient and include a video monitor that allows the patient and the health provider to see and talk to each other.

Telemedicine in the Veterans Affairs Department

With over 5,000 patients enrolled in the VHA home telehealth program, the Department is administrating one of the largest initiatives in this arena. The leadership of the Department is to be congratulated for their efforts to improve the lives of the nation's

veterans by using this technology. This effort should both improve care for veterans and reduce costs for the Department. Recognizing that patients with varying levels of need require different types of technology will enable the Department to tailor care to specific individuals.

The Department has been working hard to set forth guidelines on the appropriate use and administration of these technologies. These include adopting technical standards, developing protocols and initiating specialized training for VHA employees involved in the use of telehealth in the home.

ATA's membership includes many of the staff from the Department and we have had two staff members from the Department who have served as members of our Board of Directors. For many years ATA and staff from the VA have worked cooperatively on a number of initiatives. Last year ATA worked jointly with the National Institutes of Standards and Technology and with staff from the Department of Defense and the VA to create a set of practice recommendations for the assessment of diabetic retinopathy using telemedicine. A staff member from the VA chairs ATA's Home Telehealth Special Interest Group and many of the VA staff involved in home telehealth have been working with ATA to develop additional training material for those new to the field.

The experience and lessons learned with the VA's use of telemedicine in the home could be a valuable resource for others in the medical community as a whole. At the same time, others outside of the VA also have much experience in this same field. For example, at our recent annual meeting we had over 50 presentations regarding home telehealth and remote disease management, which can have applications within the VA healthcare system.

ATA applauds the Department of Veterans Affairs for its efforts to deploy telemedicine into the home. We appreciate the progress they are making in this critical field and stand ready to help with the cross fertilization of ideas between the Department and others involved in this rapidly growing field of health care.